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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,812	09/12/2003	Kyosuke Taka	59844 (49381)	7057
21874	7590	10/20/2004	EXAMINER	
EDWARDS & ANGELL, LLP			BRASE, SANDRA L	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	
			2852	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,812

Applicant(s)

TAKA ET AL.

Examiner

Sandra L. Brase

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) 4-9 and 12-17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/12/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: 4, 5 and 6. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities.

On page 13, lines 11, 15 and 20; on page 16, line 21; on page 18, line 23; on page 21, line 18; on page 22, lines 20 and 21; on page 36, line 4; on page 37, line 1; on page 39, line 9; and on page 41, line 12, reference numeral "1" appears, but is also used in the description of a detection pattern (see figures 6 and 10).

On page 13, lines 11 and 24; on page 16, line 24; on page 19, line 3; on page 23, line 1; and on page 49, line 24, reference numeral "2" appears, but is also used in the description of a detection pattern (see figures 8 and 11).

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On page 13, lines 11, 22 and 25; on page 14, lines 5, 6, 8, 10, 13, 15 and 18; on page 15, lines 13 and 20; on page 16, lines 5 and 23; on page 19, lines 1, 9, 12, 16 and 17; on page 20, line 11; on page 21, line 19; on page 22, line 23; on page 23, lines 2, 7 and 15, on page 24, line 13; on page 36, line 25; on page 39, line 9; and on page 49, line 24, reference numeral "3" appears, but is also used in the description of a detection pattern (see figures 9 and 12).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. (US 6,148,168) in view of Deki et al. (US 5,740,492).

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6. Hirai et al. (...168) disclose an image adjustment method of transferring a plurality of color component images by a transfer unit, detecting a superimposed state of the respective transferred color component images with a sensor, and adjusting an image transfer position, based on detected results, to correctly superimpose the respective color component images (abstract; col. 2, line 45 – col. 4, line 13; and col. 9, line 43-60), comprising the steps of: accepting information giving an instruction to detect a superimposed state of the respective color component images; and starting detection of a superimposed state of the respective color component images by controlling an operation of the sensor, upon acceptance of the information (col. 14, lines 50-62). However, Hirai et al. (...168) do not disclose the claimed step of stopping operations. Deki et al. (...492) disclose an image forming method including the step of stopping operations other than a control operation of a sensor and accepting the results of a sensor when a detection operation is being performed (col. 3, lines 26-29; and col. 7, line 58 – col. 8, line 32). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed step of stopping operations, as disclosed by Deki et al. (...492), as to prevent fluctuation during a sensing step.

7. Claims 2, 3, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirai et al. (US 6,148,168) in view of Udaka et al. (US 6,687,472) and Deki et al. (US 5,740,492).

8. Hirai et al. (...168) disclose an image forming apparatus for forming an image by superimposing a plurality of color component images by separately transferring each color component (col. 7, line 9 – col. 8, line 18), comprising: a housing capable of being opened and

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closed (figure 1); an image sensor (223) for detecting a superimposed state of the respective transferred color component images (col. 9, line 61 – col. 10, line 29); a controller capable of performing operations of: controlling an operation of the image sensor and accepting means accepting information giving an instruction to detect a superimposed state of the respective color component images (abstract; col. 2, lines 45 – col. 4, line 13; col. 9, lines 43-60; and col. 14, lines 50-62). The sensor detects a superimposed state of the respective color component images on a predetermined cycle (col. 9, lines 43-50). However, Hirai et al. (...168) do not disclose the claimed open/close sensor and the claimed stopping operations. Udaka et al. (...472) disclose an image forming apparatus includes an open/close sensor (52) for detecting opening and closing of the housing (col. 10, lines 30-32; and figure 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed open/close sensor, as disclosed by Udaka et al. (...472), so that an image forming apparatus control unit can be informed when the image forming housing is opened or closed. Deki et al. (...492) disclose an image forming apparatus including stopping operations other than control of the operation of the image sensor and accepting sensor results (col. 7, line 58 – col. 8, line 32). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed stopping operations, as disclosed by Deki et al. (...492) so as to prevent fluctuation of sensor results.

Allowable Subject Matter

9. Claims 4-9 and 12-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Rasmussen et al. (US 6,529,616) disclose a sensor for detecting color registration.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is 571-272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sandra L. Brase
Primary Examiner
Art Unit 2852

October 15, 2004